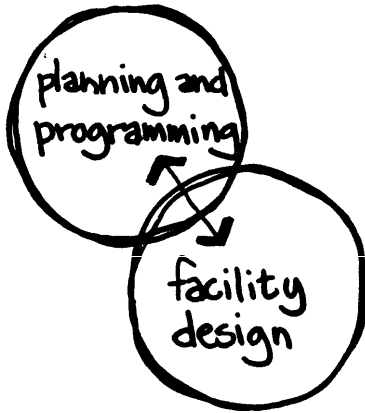


CHAPTER 1

Introduction

1-1 Purpose



Guide Use

a. This guide contains design criteria for Army Auto Crafts Centers which are in some instances referred to as Automotive Self-Help Garages. The term Automotive Self-Help Garage will be used only when preparing budget documents, DD forms 1391 which summarize project requirements for the Military Construction, Army (MCA) Program and for nonappropriated funded projects as stated in AR 28-1 and AR 230-1.

b. The primary purpose of this guide is to provide criteria for design personnel who prepare and evaluate project designs. This guide also provides general guidance for installation personnel and Corps of Engineers field offices in planning and programming project requirements.

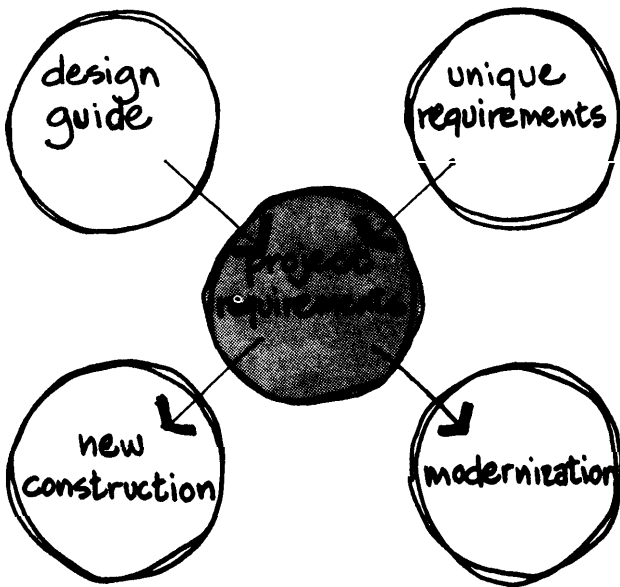
c. In addition, it is expected that facility managers will find this guide useful in planning improvements or in better utilizing existing Auto Crafts Centers or other suitable facilities.

d. This guide is directed toward improving early design decisions and toward the development of realistic, cost-effective spaces in conjunction with the regulations and criteria references below. It should be used in the preparation of project development brochures, project data forms, design analyses and drawings.

1-2 Primary References

- a. DOD 4270.1 -M, Department of Defense *Construction Criteria Manual*.
- b. AR 28-1, *Army Recreation Services*.
- c. AR 415-10, *General Provisions for Military Construction*.
- d. AR 415-15, *MCA Program Development*.
- e. AR 415-17, *Empirical Cost Estimates for Military Construction*.
- f. AF 415-20, *Project Development and Design Approval*.
- g. E R -1110-345-700, *Design Analysis*.

1-3 Scope



Application

a. This design guide is applicable to all new construction projects for Army Auto Crafts Centers. It is also applicable, as general guidance, to projects involving the modernization or conversion of existing facilities.

b. While this guide is the basic design criteria document for Auto Crafts Centers, it is not intended to provide all of the information required for successful preparation of project designs. Additional information must be obtained from the installation pertaining to the unique requirements of the users and the locational constraints and opportunities of the site.

c. Maximum space allowances for Auto Crafts Centers are discussed in Department of Defense Construction Criteria Manual 4270.1-M, Chapter 3. These allowances are based on the authorized projected military population of the using installation. Military population is defined as the military strength plus ten percent of the dependent population and ten percent of the retired military personnel living in the area. Although an Auto Crafts Center of 17,000 square feet which serve a military population of 15,000 to 20,000 was chosen to illustrate the criteria contained in the guide, the criteria contained herein are applicable to all sizes of facilities.

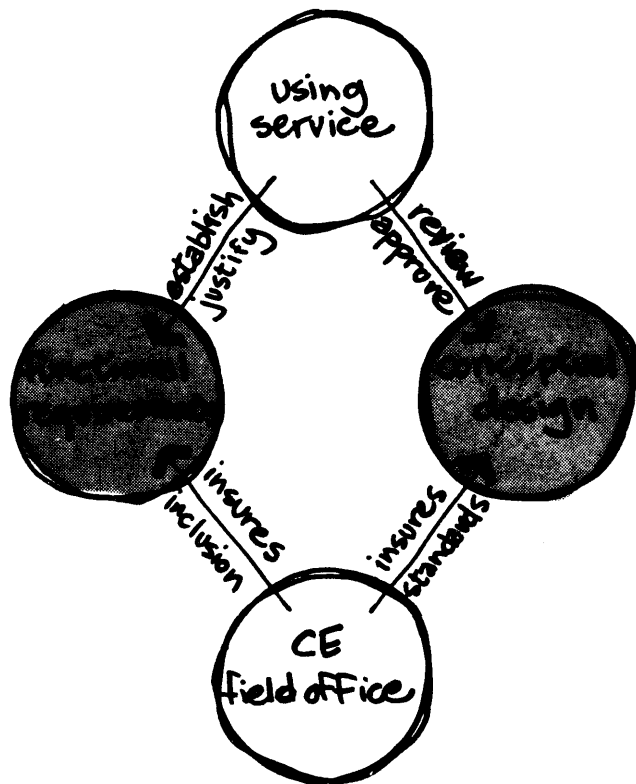
d. Example designs are provided in Chapter 5 for both a new facility of 17,000 square feet and for converting a facility as found space containing 20,000 square feet.

1-4 Emphasis

a. Special emphasis shall be placed on the quality of architectural design since it vitally affects the longevity, economics, usefulness and efficiency of Auto Crafts Centers. In addition to considerations of life-cycle economy and functional efficiency, a prime requirement of the architectural design shall be the attractiveness of both the interior and exterior facilities. An overall interior design scheme should be developed in conjunction with the building design of all new facilities and of major alterations to existing facilities. Items that must be procured using other than construction funds should be programmed early and scheduled for procurement as appropriate.

b. As part of the overall design, a users information book should be assembled to help provide instructions on maintaining and operating the facility to maximum advantage. The book should cover major design intentions for the utilization of the facility and its interior spaces, and related information concerning environmental controls, mechanical facilities and housekeeping in general.

1-5 Responsibilities



Project Responsibilities

a. The using service for individual MCA projects is defined in AR 415-10 and its responsibilities are outlined in AR 415-20. The using service is responsible for:

- (1) Establishment of specific project functional requirements within the parameters contained in this guide.
- (2) Justification of functional requirements falling outside the parameters of this guide.
- (3) Obtaining installation action to gain site approval if the project is not sited in accordance with the approved master plan.
- (4) Preparation and submission of project data, DD Form 1391, in accordance with AR 415-15.
- (5) Preparation and submission of the project development brochure required by AR 415-20.
- (6) Review and approval of concept design drawings to certify compliance with functional requirements.

b. The Corps of Engineers field office responsible for design will insure that:

- (1) Functional requirements of the using service are incorporated into the design.
- (2) Requirements of the using service are in accordance with the criteria contained herein.
- (3) Major deviations from this guide as requested by the using service are explained in the project design analysis.
- (4) Quality standards for overall design are emphasized as stated herein.
- (5) Assemblage of user information is complete, and is provided, together with the completion records required by AR 415-10, to the using service.